CALIFORNIA INSTITUTE FOR REGENERATIVE MEDICINE

FA1-00614-1 University of California, Merced - CIRM Special Program

Requested Funding: $5,128,000

Facilities Working Group Score: 85 **FWG Recommended Funding: $4,359,480**

Possible points ±	Value 25	Leverage 25	Urgency 20	Shared Res 15	Functionality 15
FWG Score: 85	22	17	19	14	13

PROPOSAL:

This Special Program application seeks CIRM funding to remodel an existing leased facility for a stem cell instrumentation foundry that will provide customized micro-systems for quantitative analyses of individual stem cells. The CIRM project consists of 5,420 assigned square feet (asf) and 8,140 gross square feet (gsf) with a total cost of $7,458,000 and requests CIRM funding of $5,128,000. The tools and devices generated in the foundry will increase understanding of the fundamental biology of stem cells, specifically, how stem cells make decisions. The proposal focuses on multi-disciplinary interactions, particularly between bioengineering and the sciences. The remodeled area includes space for research activities, offices and support. The foundry includes sophisticated Class 1000 and Class 100 clean rooms (highly filtered spaces where there are fewer than 1,000 particles or 100 particles per cubic foot of air in the space) for micro/nano fabrication. These facilities do not exist elsewhere at this institution or in the region. At occupancy, the facility will house eight existing Principal Investigators (PIs) and their research teams. Completion of the project is scheduled for June 2010.

COST:

Cost Summary Table

Cost Category	Total Amount	Amount/PI*
Building	$7,000,000	$875,000
Group 2 Equipment	$458,000	$57,250
Total	$7,458,000	$932,250
Requested CIRM Amount	$5,128,800	$641,100
Applicant Amount	$2,329,200	$291,150

* Based on number of PIs included in the Part 1 Capacity/Use table

SUMMARY OF FACILITIES WORKING GROUP REVIEW AND DISCUSSION

The reviewer found that the proposal had considerable merit, noting that the applicant's stem cell instrumentation foundry function is on the leading edge of stem cell processing.

Value—It was acknowledged that the location, though now somewhat isolated, is in the growing San Joaquin Valley. UC Merced is the newest and only University of California campus built in many years; the campus has a vision to be an active participant in the future of California. The scientific review noted the applicant was in its infancy and had some concerns about the proposed foundry process and that the applicant did not have a well developed operations and access plan. The group agreed that this opportunity for Merced would provide more fruitful relationships with other stem cell researchers and institutions that warranted the CIRM investment. The group also commented on the fact that the cost per PI of $380,000 was well below the average despite the inclusion of very expensive clean room space. It was also noted that while the work will be in a leased facility, the space will be available for stem cell research for the required ten years. There was concern expressed about the cost of a project that was not fully designed, specifically that the applicant would be at risk for any cost overruns beyond the 5.8 per cent contingency noted in the budget.

Leverage—The reviewers noted that leverage is average in comparison to other applicants. The applicant responded that additional investments for equipment will eventually be required, and though $300,000 is noted in the application, an overall investment of $1.2 million from institutional funds and gifts is contemplated.

Urgency—The reviewer noted the schedule for completion is reasonable for alteration of an existing space, and that the campus has the necessary skills to accomplish the remodel as scheduled.

Shared Resources—The FWG noted that this proposal will foster opportunities for development of new researchers.

Functionality—The reviewer noted that the small size of the facility (678 asf per PI) was a concern because the average per PI is about 3,300 asf. The FWG discussion focused on the foundry clean rooms which make up the majority of the space and noted that this proposal is not directly comparable to others because of the focus on a single activity, the foundry operation. The lab planner noted the function of the clean room facility is not what would be typical in a wet bench laboratory

The FWG score for this application was 85. During programmatic review, the FWG voted to recommend funding of $4,359,480, representing 85 percent of the requested CIRM amount of $5,128,000.